



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT / CAPITAL EQUIPMENT

ENQUIRY

Phone: +91 431 257 70 49

Fax : +91 431 252 07 19

Email : csguna@bheltry.co.in

Web : www.bhel.com

	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
	2620800084	22.08.2008	26.09.2008

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Portable Grinding and Lapping Machine – QC NRV as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	02 Nos.	30.06.2009

BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference “2620800084”.

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

Sr.Manager / MM / Capital Equipment

PART A
PORTABLE GRINDING & LAPPING MACHINE – QCNRV

SECTION – I : QUALIFYING CRITERIA

The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer for the PORTABLE GRINDING & LAPPING MACHINE

S. No.	REQUIREMENTS	VENDOR's RESPONSE
1	<p>Only those vendors (OEMs), who have supplied and commissioned at least ONE special purpose grinding Or lapping machine in the past ten years (from the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (from the date of opening of Tender) should quote.</p> <p>However, if such machine had already been supplied to BHEL, then that machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (from the date of opening of Tender).</p>	
The vendor should submit following information where similar machine has been supplied for qualification of their offer.		
1.1	Name and postal address of the customer or company where similar machine is installed.	
1.2	Name and designation of the contact person of the customer.	
1.3	Phone, FAX no and email address of the contact person of the customer.	
1.4	Month and Year of commissioning of the machine.	
1.5	Application for which the machine is supplied	
1.6	Performance certificate from the customer regarding satisfactory performance of machine supplied to them.	
2.0	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	

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SECTION – I I

The BIDDER / VENDOR is requested to provide the following information:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
3.0	The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, portable grinding / lapping machines have been supplied in the past.	
4.0	Details of portable grinding / lapping machines supplied to other BHEL units, if any. (Year of commissioning, application of machine, size of grinding / lapping disc)	
5.0	Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centers in South India.	
6.0	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

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SECTION – III

The BIDDER to note:

S. No.	PARTICULARS	VENDOR'S RESPONSE
7.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B], Commercial Offer & 2. Price Bid.	
8.0	The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHEL and Offer Details submitted by the Bidder , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	
9.0	The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible.	
10.0	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation.	
11.0	For obtaining the performance certificate from the customer, a suggestive format is provided in SECTION – IV	

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SECTION – IV

The performance certificate should be produced **on Customer's Letter Head.**

PERFORMANCE CERTIFICATE

1. Supplier of the machine	
2. Make & Model of the M/C	
3. Month & Year of Commissioning	
4. Application for which M/C is used	
5. Performance of the Machine (Strike off whichever is not applicable)	Best in the market / Satisfactory / Good / Average / Not Satisfactory
6. Any Other remarks	
 Date: Signature & Seal of the Authority Issuing the Performance Certificate	

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PART – B**TECHNICAL SPECIFICATION FOR PORTABLE LAPPING & GRINDING MACHINE - QCNRV****Qty . 2 Nos. for B5**

Clause	PARTICULARS AND BHEL SPECIFICATION	Vendor's Offer
1.0	PURPOSE: The machine is intended to grind and lap the valve body seats of Quick Closing Non-return (QCNRV) Valves. Grinding and Lapping the satellite deposited seat portion of QCNRV Valve body assemblies of sizes 8” to 32” – configuration of jobs indicated in Annexure 1 After lapping the surface finish shall be 0.2 micron (Ra)	
2.0	CONFIGURATION OF MACHINE: The machine shall be portable and capable of being mounted on the valve body for grinding and lapping the seat portion of valve body (refer annexure-I). Vendor shall briefly explain the configuration of the machine and its accessories.	
3.0	SPECIFICATION:	
3.1	Valve size range (8”- 32”) - Dia 200 to dia. 800 mm	Vendor to confirm
3.2	Maximum submerging depth - 1200 mm.	Vendor to specify
3.3	Spindle speed (RPM) for grinding	Vendor to specify
3.4	Spindle speed (RPM) for lapping	Vendor to specify
3.5	Spindle drive power - AC Continuous Rating – Min. 750 W	Vendor to specify
3.6	Vendor to furnish the make & model no. of the drive motor	Vendor to specify
3.7	Operating voltage of electric motors: - 230 V – 50 Hz.	Vendor to confirm
4.0	ACCESSORIES	
4.1	GRINDING TOOLS including consumables: Suitable for the Components included in Annexure - II	Vendor to specify
4.2	Lapping Tools including consumables: Suitable for the Components included in Annexure - II	Vendor to specify
5.0	OPERATOR'S PANEL:	
5.1	The operation of the machine shall be by an operating panel with push buttons	Vendor to confirm
6.0	ELECTRICAL SYSTEM:	

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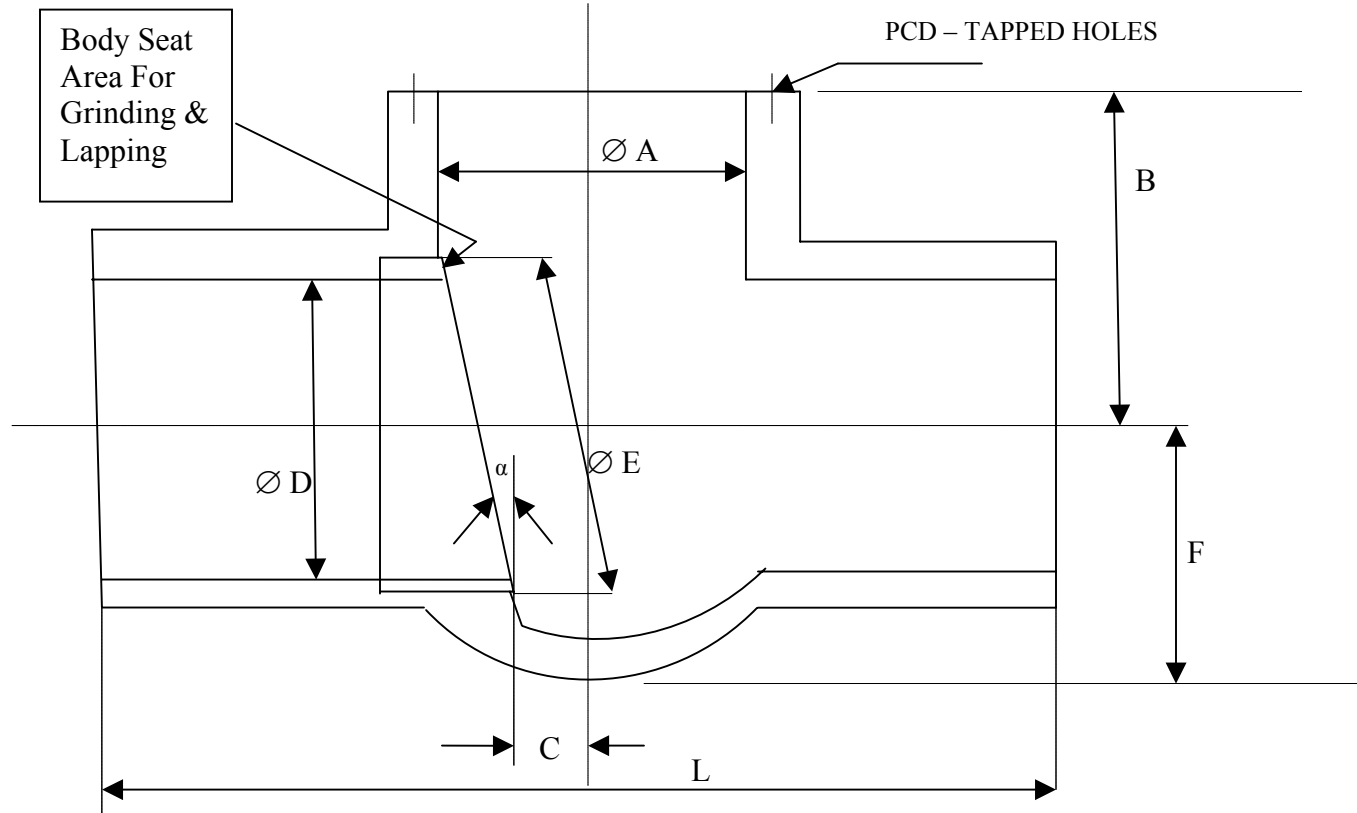
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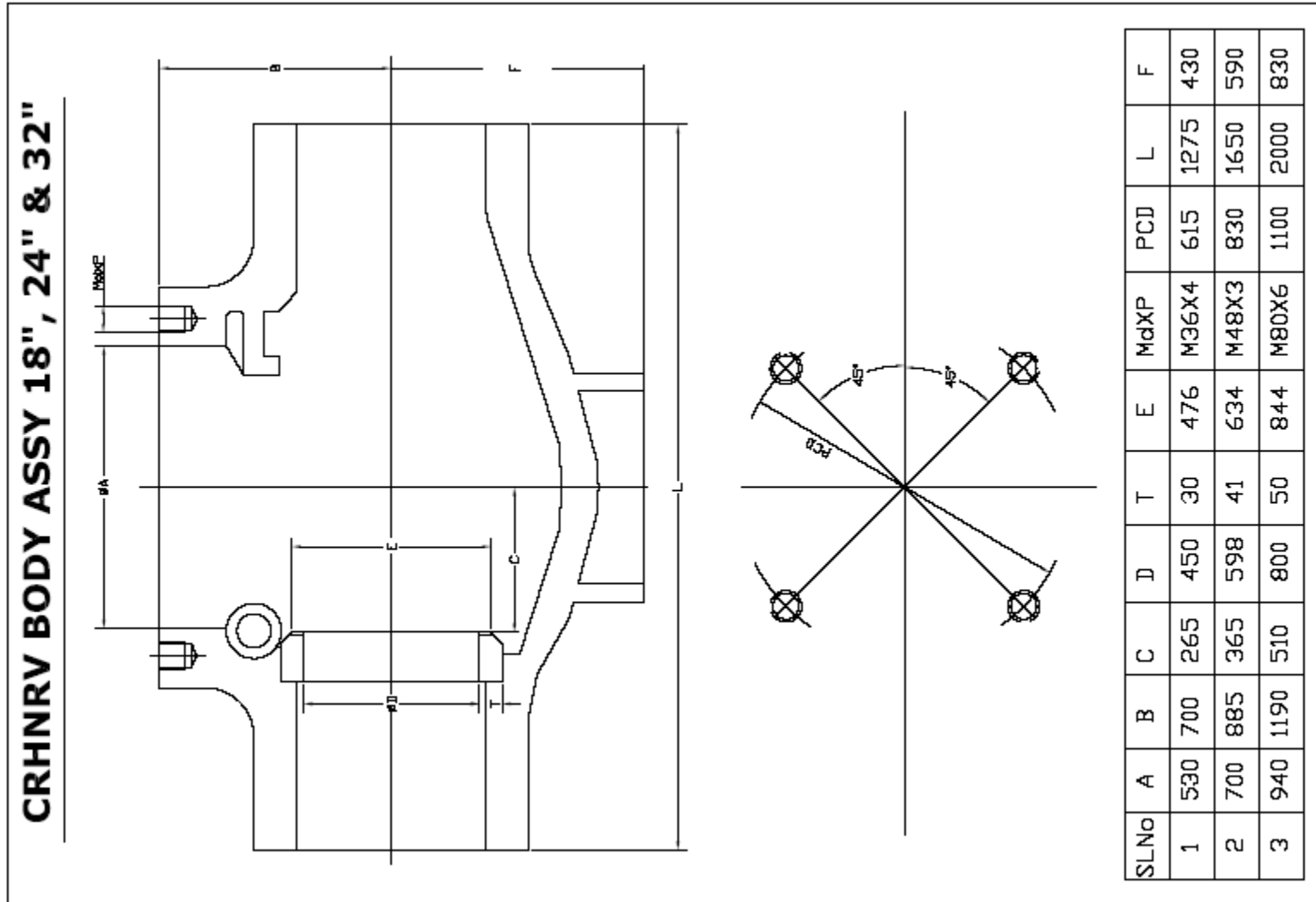
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Clause	PARTICULARS AND BHEL SPECIFICATION	Vendor's Offer
6.1	AC 230 V, 50 Hz Single phase power Supply will be provided by BHEL .All other electrical connections from this point shall be the responsibility of vendor and can be included in the offer.	Vendor to confirm
6.2	Tropicalisation: All electrical / electronic equipment shall be tropicalized	Vendor to confirm
6.3	Motors shall conform to IEC or Indian Standards.	Vendor to confirm
7.0	SAFETY ARRANGEMENTS: The machine shall have adequate safety features with regard to operation and maintenance.	Vendor to confirm
8.0	ENVIRONMENTAL PERFORMANCE OF THE MACHINE:	
8.1	Maximum noise level shall not exceed 85 dB (A) at normal load condition, 1 M away from the machine.	Vendor to confirm
9.0	SPARES:	
9.1	The vendor to recommend the list of mechanical, electrical and electronic spares required for the machine with unit price of each item required for 2 years of trouble free operation of the machine	Vendor to furnish
10.0	DOCUMENTATION: Following documents (Hard copies) in English language should be supplied along with the machine	Vendor to confirm
10.1	Three sets of Operating manuals of Machine.	
10.2	Three sets of Detailed Maintenance manual of machine with all drawings of machine assemblies/sub-assemblies/parts.	
10.3	Specification of the abrasive recommended for grinding	
10.4	Specification of the abrasive recommended for lapping	
11.0	AMBIENT CONDITIONS:	
11.1	The machine and all accessories shall be suitable for the following operating conditions. AC Single phase Power Supply: 230 V , 50 Hz. Ambient Temperature = 45 °C max, Relative Humidity = 85% max.	Vendor to confirm
12.0	Machine Acceptance	
12.1	At Vendor's works : The machine shall be offered for inspection to BHEL, at vendor's works prior to dispatch.	Vendor to confirm

Clause	PARTICULARS AND BHEL SPECIFICATION	Vendor's Offer
12.2	At BHEL : Vendor to demonstrate the features of the machine and its accessories	Vendor to confirm
12.2.1	Prove-out of BHEL components	Vendor to confirm
13.0	COMMISSIONING OF MACHINE AT BHEL	
13.1	The vendor shall commission the machine at BHEL	Vendor to confirm
13.2	Commissioning shall include trials and prove-out of BHEL components	Vendor to confirm
13.3	All tools and tackles required for commissioning shall be arranged by vendor	Vendor to confirm
13.4	The vendor shall also arrange any commissioning spares required for commissioning and prove-out of the machine	
14.0	PROVEOUT OF BHEL COMPONENTS:	
14.1	List of prove-out components is in Annexure – 2. At the time of prove-out, the actual components offered may vary, but the overall configuration of the job will not change.	Vendor to confirm
14.2	Vendor shall supply grinding, lapping tools and consumables for the prove-out components.	Vendor to confirm
14.3	Achieving the surface finish of Ra 0.2, after lapping will be the responsibility of the vendor	Vendor to confirm
15.0	TRAINING AT BHEL	
15.1	The vendor shall train BHEL personnel for the operation and maintenance of the machine for a period of 5 working days, after commissioning.	Vendor to confirm
16.0	PACKAGING:	
16.1	Sea worthy & rigid packing for all items of complete machine, all Accessories and other supplied items to avoid any damage/loss in transit. When machine is despatched in containers, all small loose items shall be suitably packed in boxes	
17.0	GUARANTEE:	
17.1	The machine with all its systems and sub-systems shall be guaranteed for a period of 12 months from the date of acceptance of the machine at BHEL works.	

ANNEXURE – I – CONFIGURATION OF QCNRV BODY SEAT - FOR GRINDING & LAPPING – RANGE OF DIMENSIONS

Sl. No	DESC	A	B	C	D	E	F	L	Angle - α	PCD – Tapped Hole
01	8"/ 300	~240	295	52	203	217	180	710	9 deg.	320
02	32"/600	~940	1190	510	800	844	830	2054	0 deg	1100

ANNEXURE – II – DIMENSIONS OF PROVE-OUT COMPONENTS

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